

542.600 Roads

See R645-301-240.

542.700 Final Abandonment of Mine Openings and Disposal Areas

See R645-301-529 and R645-301-738.

542.800 Reclamation Costs

See R645-301-830.100 and R645-301-830.300

R645-301-550 Reclamation Design Criteria and Plans

R645-301-551 Casing and Sealing of Underground Openings

The Bear Canyon Mine complex has eight existing portals.

The Bear Canyon #3 and #4 mines have a total of six portals (Plate 5-1A and 5-1C), all located in Bear Canyon. The #4 Mine has an auxiliary portal described in Appendix 5P. All portals will be reclaimed as described in sections R645-301-529, and R645-301-738.

R645-301-552 Permanent Features

No response required.

NO III.

- ☐ Confidential
- ☐ Shelf
- ☒ Expandable

Refer to Record No 0100 Date 12/10/2007
In C10150025, 2007, incoming
For additional information

980 Loader Cycle Time

(From Cat Performance Handbook)

	0.55 min
a. 3/4 inch to 6 inch	0.00 min
b. Pile (10 ft or less)	+ 0.01 min
c. 3/4 inch to 6 inch	- <u>0.04 min</u>
	0.52 min

$(60 \text{ min/hr}) / (0.52 \text{ min/cycle}) = 115.4 \text{ cycles/hr}$

Efficiency 50 min/hr - $(115.4 \text{ cycles/hr})(6 \text{ cu yd/cycle})(50 \text{ min}/60 \text{ min}) = \underline{577 \text{ cu yd/hr (96 cycles/hr)}}$

Summary of Reclamation Cost Estimate

Direct Costs

a. Seal Portals and Backfill	\$ 112,500
b. Removal of Structures	\$ 210,403
c. Soil Placement and Ripping	\$ 178,617
d. Channel Restoration	\$ 403,728
e. Revegetation	\$ 462,968
f. Monitor Well Plugging	<u>\$ 5,000</u>

Total Direct Costs: \$ 1,373,216

Indirect Costs

g. Maintenance and Monitoring (10%)	\$ 137,322
h. Contingency (5%)	\$ 68,661
i. Engineering Redesign (2.5%)	\$ 34,330
j. Mobilization and Demobilization (5%)	\$ 68,661
k. Contract Management Fee (2.5%)	<u>\$ 34,330</u>

Total Indirect Costs: \$ 343,304

Total Reclamation Cost (2001 dollars) \$ 1,716,520

<u>Escalated Values</u>	<u>Escalation Factor</u>
2002 - 1,770,075	3.12% (est)
2003 - 1,825,302	3.12% (est)
2004 - 1,882,251	3.12% (est)
2005 - 1,940,978	3.12% (est)

The total bond currently posted, rounded to the nearest \$1,000, is **\$1,825,000**.

Reclamation Costs

a. Seal and Backfill Portals

AMR Costs- \$ 12,500/seal including backfill x 9 seals \$112,500

b. Removal Structures

All estimates with 10 digit numbers are from 2001 Means Site Work cost Data. Most of the steel and equipment will be salvaged for scrap or reuse. M&P Enterprises in Huntington, Utah, will pick up and pay \$40.00/ton for scrap iron & equipment if placed in 30 cu yd (8ft wide x 20 ft long x 5 ft high) dumpsters or loaded with crane on their trucks. Reclamation costs assume the steel will be picked up on site, but the mine receives no payment for the steel. D&R Salvage in Castle Dale will accept the steel without a dump fee. Therefore no dump fee is included for steel. Means cost data includes disposal to 20 miles, which is the approximate distance to the Nielson Construction landfill in Emery County. Dump fee for Nielson Construction landfill is \$7.00 typically.

Sales-Receiving-Scale House Complex

02220-100-0100 (Mixture type Building, includes disposal)

Volume = (34 ft) (83 ft) (16 ft) = 45,152 cu ft

Cost = (\$ 0.24 /cu ft) (45,152 cu ft) = \$ 10,837

Dump Fee = ((45,152 cu ft) / 27) * 0.3 rubble volume * 1.35 tons/cy) (\$7.00/ton) = \$4,741

Time = (45,152 cu ft) / (20,100 cu ft/day) = 2.25 days

Concrete Demolition

Total Footing Volume =(0.67 ft)(2 ft)(234 ft) = (313.6 cu ft) / 27 = 11.6 cu yds

Total Foundation Volume = (0.67 ft)(4 ft)(234 ft) = (627.1 cu ft) / 27 = 23.2 cu yds

Floor Volume = (83 ft)(34 ft)(0.33 ft) = (931.3 cu ft) / 27 = 34.5 cu yds

Total Volume = 69.3 cu. yds

Cost = (69.3 CY) (\$12.78/CY) = \$886

Time = (234 L.F.)/(300 L.F./day) + (234 ft)(4 ft)/(140 s.f./day) + (83 ft)(34 ft)/(500 s.f./day) = 13.10 days

02220-875-5550 (Concrete Disposal on Site) 002315-400-1300 (3 CY loader) 02320-200-0320 (16 ton truck)

Cost = (\$10.69/cu. yd.) (69.3 cu yds) (1.3 swell factor) = \$963

Time = 90.1 cu. yds. / (232 cu. yds./day) = 0.40 days

Cost Subtotal \$17,427

Time Subtotal 15.75 days